

**Notice of Allowability**

Application No.

10/733,003

Examiner

Diane Mizrahi

Applicant(s)

PAL, SUPRIO

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8-2-07.
2. ☒ The allowed claim(s) is/are 3 and 6.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 10-24-07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

DIANE MIZRAHI  
PRIMARY EXAMINER

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**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Alfred Kozak on October 24, 2007.

Claims 3 and 6 are examined.

**The application has been amended as follows:**

**Listing of Claims:**

1. (withdrawn) In a Database Management System (DBMS) holding a base table of information in a Database and using indexes which allow OLE DB applications of a client user to retrieve a selected column of said table without need to access said base table, a system for accessing data from said Database, a method for optimizing a query to said Database comprising the steps of:

- (a) utilizing a "FIND KEY OF" feature to access said selected column thus to avoid the unnecessary inclusion of columns from a disk file data set;
- (b) returning a selected row of information, from said selected column, to said OLE DB application.

2. (withdrawn) The method of claim 1 wherein step (a) includes the step of:

- (a1) accessing a row of selected data using said "FIND KEY OF" which gathers the column data stored in said index.

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3. (currently amended) In a Data Management System (DBMS) wherein an Enterprise Database Server operating under a Master Control Program (MCP) operates through a Data Access Module to a Windows™ client application program having a consumer's data buffer, said system holding a base table of information in a Database ~~and providing an index structure having index files wherein each index file contains a Key and Pointer which points to a record in said base table~~, a method for managing database queries for data access by managing overhead operations which no longer require access to said base table in said database, said method comprising the steps of:

(a) ~~fetching a limited set of columns from said base table; providing an index structure having index files wherein each index file contains a Key and Pointer which points to a record in said base table,~~

(a1) fetching a limited set of columns from said base table;

(b) issuing a database fetch request from said index structure wherein step (b) includes the step of:

(b1) retrieving column information from said index structure;

(c) enabling Online Embedded Database (OLE DB) applications to access selected columns present in said index structure while eliminating the need to access said base table.

4. (canceled)

5. (canceled)

6. (currently amended) A system ~~wherein~~ of an Enterprise Database Server operating under a Master Control Program (MCP) which operates through a Data Access Module to a Windows™ client application program which when executed by a computer causes having a consumer's data buffer, ~~said system for optimally accessing a specified column of a row in a database from a Windows-based Online Embedded Database (OLE DB) application eliminating the need to fetch an entire row from a base table~~, said Database Server providing an Index

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Structure holding a Key and Pointer to a record in a table and organized with Rowsets where each row has columns of data, said system comprising:

(a) means for optimally accessing a specified column of a row in a database from a Windows based Online Embedded Database (OLE DB) application eliminating the need to fetch an entire row from a base table and having client query means for fetching a limited set of columns from a table including:

(a1) means to determine if said Rowset was opened with an Index[[,]]; ~~and if applicable, then;~~

(a2) means to determine if the command "FIND KEY OF" is applicable for this Index[[,]] ~~and if applicable, then;~~

(a3) means to set the CRowset member variable (m\_GetData\_CanDefer) to TRUE;

(b) checking means to determine which columns are present in the ~~index structure~~ Index Structure which spans said table including;

(b1) means for creating an accessor ~~means~~ for setting up bindings for each column in a row that needs to be accessed including where the column data is to be laid out in the consumers data buffer and which includes a binding for each column in a row;

(b2) means to determine [[if]] the Rowset was opened with an Index, of said Index Structure ~~and when this occurs then;~~

(b3) means to check whether said accessor means is a NULL accessor which has no bindings, and where said means to check [[(b3)]] indicates [[it]] that said means to check indicates that said accessor means is NOT a FULL accessor, then said means [[(b3)]] to check includes:

(b3a) means to check all bindings including:

(b3a1) means to determine for each binding, if the column is a KEY column or KEYDATA column, ~~and if [[it]] said~~ means to determine indicates a KEY or KEYDATA column-then said means (b3a1) to determine includes:

(b3a1a) means to set a CRowset member variable to indicate deferred column fetch and to enable getting data from said Index ~~structure~~ Structure;

(b4) means to indicate that said [[Row]] specified row can be fetched from an Index ~~structure~~ Structure;

(c) database fetch request means for fetching a column from only said ~~index structure~~ Index Structure.

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (withdrawn) A method for optimizing a query from an OLE DB application in a Data Management System database organized with a base table having rows and columns of data plus an Index Structure with key entries pointing to records in the base table comprising the steps of:

(a) deciding whether or not it is necessary to access said base table, and if not necessary;

(b) utilizing a key and/or keydata of an index in said index structure to access said database table columns;

(c) creating column bindings for only the column data stored in the index structure;

(d) supplying the data, in response to said OLE DB query, from said index structure.

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12. (withdrawn) The method of claim 11 which includes the step of:

- (e) counting, by said OLE DB application, the number of rows in a table while traversing one of the index structures from beginning to end without creating any column bindings.

13. (withdrawn) In a system utilizing an OLE DB to access a Database storing data in tables having rows and columns, said system enabling access to desired data in a rapid efficient manner and comprising:

- (a) means to access desired data from said database by defining column access after first executing access of a desired row.

14. (withdrawn) The system of claim 13 wherein said means (a) to access includes:

- (a1) means to subsequently access said desired column after accession of said desired row.

15. (withdrawn) In a Data Management System (DBMS), accessed by applications utilizing the OLE DB interfaces, a system for optimal retrieval of data from a database means organized in base tables of rows and columns correlated to an Index having keys pointing to data records in said base table comprising:

- (a) client-application (100) platform means for accessing and retrieving data from said database (104);
- (b) application program interface means (24) for communication with a Data Provider means (20);
- (c) said data provider means (20) for passing client requests for data to a database server means (104);
- (d) database server means (104) for handling transactions, inquiries and updates.

16. (withdrawn) The system of claim 15 wherein said (c) data provider means (20) includes:

(c1) data provider object means (25) for passing client requests for data via a transport object (26) and TCP/IP network (22) to a server end module (20B) means;

(c2) said server end module means (20B) including:

(c2a) server library means (28) for managing connections from client work stations;

(c2b) worker module means for accessing said database server means (104).

17. (withdrawn) The system of claim 15 which includes:

(e) means for fetching rows including:

(e1) means to determine if deferred column fetch is set for the Rowset, and if yes;

(e2) means to check if the session-in-transaction and the isolation level is greater than "Read Uncommitted", and if yes;

(e3) means to stop the process since Rows cannot be fetched from said Index.

18. (withdrawn) The system of claim 17 wherein said means (e2) to check indicates the session-in-transaction and isolation level is NOT greater than Read Uncommitted, then said system includes:

(e2a) means to send a Defer-Flag to a Worker module in said data provider means to indicate that Rows are to be fetched from Index only.

19. (withdrawn) The system of claim 17 which includes:

(e4) means for updating Rows in said DataBase Server means (104) including:

(e4a) means for determining if a Row has been fetched in a Deferred Mode, and if yes;

(e4b) means to use the bookmark of the Row to fetch the complete row with all its columns.

**Allowable Subject Matter**

Claims 3 and 6 are allowed over the prior art made of record.

The following is a statement of reasons for the indication of allowable subject matter:

The following is an examiner's statement of reasons for allowance:

Applicant's particular computer system and associated method in a data management system wherein an Enterprise database server operating under a master control program operates through a data access module to a Windows™ client application program having a consumer's data buffer, the system holding a base table of information in managing database queries for data access by managing overhead operations which no longer require access to the base table in the database which includes providing an index structure having index files wherein each index file contains a key and pointer which points to a record in the base table, fetching a limited set of columns from the base table; issuing a database fetch request from the index structure wherein retrieving column information from the index structure, and enabling online embedded database applications to access selected columns present in the index structure while eliminating the need to access the base table in combination with the other limitations of the claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record. The closest prior art fails to anticipate or render Applicant's limitations above obvious.



**Comments**

The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. In no case may an applicant reply outside the SIX (6) MONTH statutory period or obtain an extension for more than FIVE (5) MONTHS beyond the date for reply set forth in an Office action. A fully responsive reply must be timely filed to avoid abandonment of this application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

As allowable subject matter has been indicated, Applicant's response must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP section 707.07(a).

**Other Prior Art Made of Record**

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. patents and U.S. patent application publications will not be supplied with Office actions. Examiners advises the Applicant that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site

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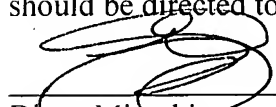
([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. For the use of the Office's PAIR system, Applicants may refer to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is 571-272-4079. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 305-3900 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
Diane Mizrahi  
Primary Patent Examiner  
Technology Center 2100

October 24, 2007